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REMARKS

Claims 1-3, 5-57, and 59-76 are pending as of the Official Action dated April 23, 2010. Claims 1, 19, 37, and 55 are in independent form. Claim 55 is being amended. No new matter has been added.

Reconsideration of the action is respectfully requested in light of the foregoing amendments and the following remarks.

Allowable Subject Matter

The Office's indication that claims 5-13, 23-31, and 41-49 would be allowable if rewritten to include all of the limitations of the respective base claims and any intervening claims is appreciated and acknowledged. The right to amend claims 5-13, 23-31 and 41-49 at a future time to include the limitations of their respective base claims and any intervening claims is expressly reserved.

Section 101 Rejections

Claims 55-57, 59-72, and 76 are rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter. The rejections are respectfully traversed.

Claim 55, as amended, recites a non-transitory computer-readable medium. As such, the withdrawal of the § 101 rejections of claim 55 and claims 56-57, 59-72, and 76, which depend from claim 55, is respectfully requested.

Section 102 Rejections

Claims 1, 19, 22, 37, 40, and 55 are rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent Application Publication No. 2004/0160979 ("Pepin"). The rejections are respectfully traversed.

The Office asserts that Pepin teaches all the features of claim 1.

It was previously asserted that the cited portions of Pepin do not teach or suggest "determining a signal quality value from received packets transmitted at a first data transmission rate," as recited by claim 1.

The Office responded, stating that:

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... the abstract and paragraph 0012 recite the quality of service probing module probes an end-to-end network path of continuous voice stream transmission to obtain quality of service parameter and determining the constraint associated with the continuous voice stream transmission to adjust the source code bit rate and the channel code bit rate as a function of the quality of service parameter and the constraint to obtain a maximum value of perceived user performance during the continuous voice stream transmission clearly reads on determining a signal quality value from received packets transmitted at a first data transmission rate as claimed. (Official Action, pages 2-3)

The abstract of Pepin provides:

A coding system and method for a terminal including a multi-rate codec is disclosed. The terminal includes a multi-rate adaptive coder that is capable of transmitting a continuous voice stream transmission at a source code bit rate and a channel code bit rate. A quality of service probing module probes an end-to-end network path of the continuous voice stream transmission to obtain at least one quality of service parameter. A quality of service management module determines at least one constraint associated with the continuous voice stream transmission. An adaptive bit rate algorithm module dynamically adjusts the source code bit rate and the channel code bit rate as a function of the quality of service parameter and the constraint to obtain a maximum value of perceived user performance during the continuous voice stream transmission. (Abstract) (emphasis added)

A portion of paragraph 12 of Pepin provides that:

The present invention discloses a fixed or wireless terminal having adaptive coder bit rates that are capable of being adjusted during operation to achieve a maximum user perceived performance. The terminal or a network includes a multi-rate adaptive coder capable of transmitting a voice stream transmission that includes a source code bit rate and a channel code bit rate. A quality of service probing module is also included on the terminal that is operable to probe an end-to-end network path of the voice stream transmission to obtain at least one quality of service parameter. (Pages 1-2, paragraph 12)

It is maintained that the abstract and paragraph 12 of Pepin disclose a coder that transmits a voice stream transmission that includes a source code bit rate, i.e., a compression rate, and a channel code bit rate, i.e., a forward error correction (FEC) rate, and a separate module that probes an end-to-end network path to obtain a quality of service parameter. The coder uses "the

optimal choice of source and channel bit rates given information on the packet loss and available bandwidth of the access network ... ." (Page 2, paragraph 33).

It is respectfully asserted that transmitting a voice stream transmission that includes a particular compression rate and a particular FEC rate, and separately probing a network path to obtain a quality of service parameter, e.g., packet loss or bandwidth, is distinct from, and does not teach or suggest "determining a signal quality value from received packets transmitted at a first data transmission rate," as recited by claim 1.

It is maintained that, to a person of ordinary skill in the art, the plain meaning of a signal quality value, as recited in the claims, is distinguishable from packet loss and bandwidth when reading the examples of signal quality values recited in the specification. *See, e.g.*, page 6, paragraph 25 of the specification. Furthermore, the source code bit rate and channel code bit rate that are adjusted in Pepin, i.e., what the Examiner suggests teaches the first data transmission rate of claim 1, is not the data transmission rate at which received packets are being transmitted and from which a signal quality value is being determined. Rather, the abstract and paragraph 12 of Pepin disclose transmitting a voice stream transmission at a particular compression rate and FEC rate, and <u>separately</u> probing a network to obtain a quality of service parameter, which is not the same as determining a signal quality value from received packets transmitted at a first data transmission rate, i.e., what the Examiner alleges is the voice stream transmission (that includes a particular compression rate and a particular FEC rate).

Claim 1 is submitted to be allowable over the cited portions of Pepin for at least these reasons.

It was also asserted that Pepin does not teach or suggest "determining a packet loss indicator value from transmitted packets transmitted at a second different data transmission rate; and selecting a third different data transmission rate in response to the signal quality value determined from the received packets transmitted at the first data transmission rate and the packet loss indicator value determined from the transmitted packets transmitted at the second different data transmission rate, wherein the selecting includes selecting the third different data transmission rate from a plurality of available data transmission rates, and each of the plurality of available data transmission rates is different from the first data transmission rate and the second different data transmission rate."

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In response, the Office stated that:

> … paragraph 0069 recites determining packet loss at the maximum
> transmission rate that can be sustained by the network path such that
> congestion does not build up clearly reads on determining a packet
> loss indicator value from transmitted packets transmitted at a second
> different data transmission rate, i.e. the maximum transmission rate
> that can be sustained by the network path such that congestion does
> not build up which is clearly different from the recited continuous
> voice stream transmission rate or the first data transmission rate;
> further paragraph 0069 which recite optimally allocating source and
> channel bits such that the transmission rate is less than the available
> bandwidth and the number of channel bits is adequate to result in
> desired speech quality given the packet loss rate clearly reads on
> selecting and transmitting packets at the third different data
> transmission rate as claimed. (Official Action, page 3)

The Office argues that a maximum transmission rate, i.e., a transmission rate that
includes a selected combination of source and channel code bit rates, described in paragraph 69
of Pepin is the third different data transmission rate of claim 1. The cited portion of Pepin states
that a bit rate adaptation algorithm module "chooses appropriate source and channel bit rates
given information on the available bandwidth and packet loss rates on the network path of
interest." (Page 5, paragraph 69).

It is maintained that choosing an optimum combination of a source code bit rate and
channel code bit rate based on bandwidth and packet loss rates is distinct from and does not
teach or suggest selecting a third different data transmission rate in response to the *signal quality
value* determined from the *received* packets transmitted at the *first data transmission rate* and the
packet loss indicator value determined from the transmitted packets transmitted at the *second
different data transmission rate*, as recited by claim 1.

In particular, it is maintained that bandwidth and packet loss rates separately determined
by a probe are not the same as a *signal quality value* determined from the *received* packets
transmitted at the *first data transmission rate* and a packet loss indicator value determined from
the transmitted packets transmitted at the *second different data transmission rate*.

It is respectfully submitted that the cited portion of Pepin does not or suggest that the
probe is transmitting the voice stream transmission (that includes a particular compression rate

and a particular FEC rate), i.e., what the Examiner alleges is the first data transmission rate, or that the probe is transmitting the voice stream transmission at a second data transmission rate. Rather, the cited portion of Pepin discloses that a multi-rate adaptive coder transmits the voice stream transmission that includes a source code bit rate and a channel code bit rate, and the bandwidth and packet loss rates are separately determined by the probe. *See, e.g.,* Abstract.

For at least these additional reasons, it is respectfully submitted that claim 1 is allowable over the cited portions of Pepin.

Claim 19 is directed to an apparatus and includes a rate selector operative to select a third different data transmission rate in response to the signal quality value determined from the packets received at the second different data transmission rate and the packet loss indicator value determined from the packets transmitted at the first data transmission rate, where the rate selector selects the third different data transmission rate from a plurality of available data transmission rates, and each of the plurality of available data transmission rates is different from the first data transmission rate and the second different data transmission rate. For at least similar reasons as set forth above with respect to claim 1, claim 19 is allowable over the cited portions of Pepin.

Claim 22 depends from claim 19 and is allowable for at least similar reasons as set forth above with respect to claim 19, and in view of the additional recitations it contains.

Claim 37 is directed to an apparatus and includes selecting a third different data transmission rate in response to the signal quality value determined from the received packets received at the second different data transmission rate and the packet loss indicator value determined from the transmitted packets transmitted at the first data transmission rate, where the selecting includes selecting the third different data transmission rate from a plurality of available data transmission rates, and each of the plurality of available data transmission rates is different from the first data transmission rate and the second different data transmission rate. For at least similar reasons as set forth above with respect to claim 1, claim 37 is allowable over the cited portions of Pepin.

Claim 40 depends from claim 37 and is allowable for at least similar reasons as set forth above with respect to claim 37, and in view of the additional recitations it contains.

Claim 55, as amended, is directed to a non-transitory computer-readable medium and includes selecting a third different data transmission rate in response to the signal quality value

determined from the received packets transmitted at the first data transmission rate and the packet loss indicator value determined from the transmitted packets transmitted at the second different data transmission rate, where the selecting includes selecting the third different data transmission rate from a plurality of available data transmission rates, and each of the plurality of available data transmission rates is different from the first data transmission rate and the second different data transmission rate. For at least similar reasons as set forth above with respect to claim 1, claim 55 is allowable over the cited portions of Pepin.

Section 103 Rejections

Claims 2-3, 16-18, 20-22, 34-36, 38-39, 52-54, 56-57, and 70-72 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Pepin in view of U.S. Patent No. 5,483,676 ("Mahany"). The rejections are respectfully traversed.

It is respectfully submitted that the Office did not assert that Mahany teaches or suggests the features of claim 1, 19, 37, or 55. Claims 2-3 and 16-18; 20-22 and 34-36; 52-54; and 56-57 and 70-72 depend from claims 1, 19, 37, and 55, respectively, and are allowable for at least the same reasons set forth above with their respective base claims.

Claims 14-15, 32-33, 50-51, 68-69, and 73-76 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Pepin in view of U.S. Patent No. 7,075,913 ("Yavuz"). The rejections are respectfully traversed.

It is respectfully submitted that the Office did not assert that Yavuz teaches or suggests the features of claim 1, 19, 37, or 55. Claims 14-15 and 73; 32-33 and 74; 50-51 and 75; and 68-69 and 76 depend from claims 1, 19, 37, and 55, respectively, and are allowable for at least the same reasons set forth above with their respective base claims.

Conclusion

By responding in the foregoing remarks only to particular positions taken by the Office, other positions that have not been explicitly addressed are not acquiesced. In addition, the arguments for the patentability of a claim should not be understood as implying that no other reasons for the patentability of that claim exist.

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It is respectfully requested that all pending claims be allowed. Please apply any charges or any credits to deposit account 06-1050.

Respectfully submitted,

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